

# Exhibit 1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

MAR 27 2020

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Chokwe A. Lumumba  
Mayor of City of Jackson  
219 South President Street  
Jackson, Mississippi 39205

Re: Emergency Administrative Order under SDWA Section 1431, 42 U.S.C. § 300i  
Public Water System: City of Jackson Public Water System  
PWS ID Number: MS0250008  
Docket No.: SDWA-SDWA-04-2020-2300

Dear Mayor Lumumba:

Enclosed is an Emergency Administrative Order (Order) issued by the U.S. Environmental Protection Agency to the City of Jackson, Mississippi (Respondent), as the owner/operator of the City of Jackson Public Water System (System), pursuant to section 1431 of the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300i.

Based on observations made by the EPA during its inspection conducted the week of February 3, 2020, and review of the documents provided by Respondent in response to the EPA's request for information issued pursuant to its authority under section 1445 of the SDWA, 42 U.S.C. § 300j-4, the EPA has determined that conditions exist at the System that present an imminent and substantial endangerment to the persons served by the System. Based on evidence of turbidity exceedances, disinfection treatment concerns, and/or the condition of the distribution system, the System has the potential to have the presence of *E. Coli*, *Cryptosporidium*, or *Giardia* in the drinking water being served to its customers. Therefore, pursuant to section 1431 of the SDWA, 42 U.S.C. § 300i, the EPA is authorized to take actions necessary to protect human health. The Order and its requirements are necessary to ensure adequate protection of public health.

The enclosed Order sets forth the actions that must be taken to ensure that the people served by the System are provided with safe drinking water. The Order requires the System to, among other things: (1) develop and implement a plan to address all monitoring equipment and appurtenant treatment equipment repairs and/or replacements; (2) address dosing processes for disinfection and pH control; (3) develop and implement a plan to provide alternative drinking water when specific triggers are met; and (4) take additional total coliform bacteria samples under prescribed conditions.

The Order constitutes a final agency action and under Section 1448(a) of the SDWA, 42 U.S.C. § 300j-7(a) you may seek federal judicial review. If you have any questions or wish to discuss this Order, please contact Amanda Driskell at (404) 562-9735 or [Driskell.Amanda@epa.gov](mailto:Driskell.Amanda@epa.gov). For legal inquiries,

please have your attorneys contact Suzanne Armor, Associate Regional Counsel, at (404) 562-9701 or Armor.Suzanne@epa.gov. Thank you for your attention to this matter.

Sincerely,



Carol L. Kemker

Director

Enforcement and Compliance Assurance Division

Enclosure

cc: Robert K Miller, Director, City of Jackson Department of Public Works  
Lester Herrington, Director of Office of Environmental Health,  
Mississippi State Department of Health

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4**

<b>IN THE MATTER OF:</b>  City of Jackson, Mississippi,  Respondent.  Public Water System, PWS ID. No. MS0250008.	) ) ) ) ) ) )	Docket No. SDWA-04-2020-2300  <b>EMERGENCY ADMINISTRATIVE ORDER</b>  Proceeding pursuant to Section 1431(a) of the Safe Drinking Water Act, 42 U.S.C. § 300i(a).
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**I. AUTHORITY**

1. This Emergency Administrative Order (“Order”) is issued to the City of Jackson, Mississippi (“Respondent”) pursuant to the authority vested in the Administrator of the U.S. Environmental Protection Agency Section 1431(a) of the Safe Drinking Water Act (“SDWA”), 42 U.S.C. § 300i(a). The Administrator has delegated this authority to the Regional Administrator of the EPA Region 4, who has, in turn, delegated this authority to the Director of the Enforcement Compliance and Assurance Division.
2. The EPA has jurisdiction to issue emergency orders pursuant to Section 1431 of the SDWA, 42 U.S.C. § 300i.

**II. FINDINGS OF FACT AND CONCLUSIONS OF LAW**

**General Findings**

3. Respondent is a municipality created under the laws of the State of Mississippi and is therefore a “person” as that term is defined in the SDWA, 42 U.S.C. § 300f(12); 40 C.F.R. § 141.2.
4. Respondent owns and/or operates a public water system located in the City of Jackson, Mississippi, PWS ID No. MS0250008 (“System”). The System provides water for human consumption to a population of approximately 173,514.
5. The System is a “public water system” within the meaning of Section 1401(4) of the SDWA, 42 U.S.C. § 300f(4); 40 C.F.R. § 141.2.
6. The System regularly serves at least 25 year-round residents and is therefore a “community water system” (“CWS”) within the meaning of Section 1401(15) of the SDWA, 42 U.S.C. § 300f(15), and 40 C.F.R. § 141.2.
7. Respondent’s ownership and/or operation of the System makes it a “supplier of water” within the meaning of Section 1401(5) of the SDWA, 42 U.S.C. § 300f(5), and 40 C.F.R. § 141.2, and subject to the requirements of Part B of the SDWA, 42 U.S.C. § 300g, and the National Primary Drinking Water Regulations (“NPDWRs”) at 40 C.F.R. § 141.

8. Pursuant to SDWA Section 1413, 42 U.S.C. § 300g-2, the Mississippi State Department of Health (“MSDH”) has primary responsibility for the implementation and enforcement of the public water supply program in Mississippi.
9. The System consists of two water treatment plants, known as the O.B. Curtis Water Treatment Plant (“O.B. Curtis WTP”)<sup>1</sup> and the J.H. Fewell Water Treatment Plant (“J.H. Fewell WTP”),<sup>2</sup> a number of groundwater wells,<sup>3</sup> and appurtenant collection, treatment, storage, and distribution facilities.<sup>4</sup>
10. Portions of the System can be supplied by both ground and surface water sources, while others are served only by surface water sources. The surface water sources are the Ross Barnett Reservoir and the Pearl River. The ground water source is the Sparta Aquifer.
11. The O.B. Curtis and J.H. Fewell WTPs, both of which treat the surface water portions of the System, employ conventional filtration with ultraviolet (“UV”) systems to inactivate pathogens. Finished water at the WTPs is disinfected using chloramines.
12. UV disinfection treatment is installed on each individual filter effluent (“IFE”) flow at both the O.B. Curtis and J.H. Fewell WTPs to treat for viruses, including *Cryptosporidium* and *Giardia*.
13. Respondent’s PWS is required to provide filtration pursuant to 40 C.F.R. §§ 141.73 and 141.173, and disinfection pursuant to 40 C.F.R. §§ 141.72(b) and 141.172.
14. Ground water from the wells is treated at the point of withdrawal using gaseous chlorine.
15. The term “contaminant” means any physical, chemical, biological, or radiological substance or matter in water.” 42 U.S.C. § 300f(6).
16. Turbidity is a measure of the cloudiness of water. It is used to indicate water quality and filtration effectiveness (such as whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms.
17. *E. coli*, *Cryptosporidium*, and *Giardia* are contaminants under the meaning of 42 U.S.C. § 300f(6), and are or may be present in the System.
18. On November 22, 2019, the EPA issued a Request for Information to Respondent, pursuant to Section 1445 of the SDWA, 42 U.S.C. § 300j-4, and 40 C.F.R. § 141.31, seeking information to determine Respondent’s compliance with federal drinking water regulations.
19. On December 23, 2019, Respondent provided its response to the EPA’s Request for Information.

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<sup>1</sup> To the EPA’s knowledge and belief, the O.B. Curtis WTP was initially constructed in or around 1992.

<sup>2</sup> To the EPA’s knowledge and belief, the J.H. Fewell WTP was initially constructed in or around 1914.

<sup>3</sup> Respondent maintains at least six active groundwater wells (T.V. Road Well, Willo-O-Wood Well, Wiggins Road Well, Siwell Road Well, Highway 18 Well, and Maddox Road Well), along with three inactive groundwater wells (Forest Hill Road Well, Rainey Road Well, and Presidential Hill Well).

<sup>4</sup> Until approximately October 2014, there were two separately identified public drinking water systems owned by the City of Jackson, Mississippi. One was supplied entirely by groundwater and identified under the PWS ID No. MS0250012; the other was supplied by surface water and identified under the PWS ID No. MS0250008.

20. On January 15 and 16, 2020, consistent with the requirements of Section 1445(b)(1), 42 U.S.C. § 300j-4(b)(1), the EPA notified MSDH and Respondent, respectively, of its intent to inspect the PWS.
21. On February 3 to 7, 2020, representatives of the EPA conducted an inspection of the PWS, pursuant to its authority under Section 1445(b)(1) of the SDWA, 42 U.S.C. § 300j-4(b)(1).

### **Bacterial Contamination and Proper Disinfection**

22. During the inspection, the EPA identified the following preliminary concerns related to bacterial contamination and proper disinfection:
  - a. The necessary chemical dosing of coagulant to address turbidity is determined by the streaming current detectors (“SCDs”); however, Respondent’s SCDs were not properly calibrated at either the O.B. Curtis or J.H. Fewell WTPs, thus failing to provide accurate dosing for proper treatment of drinking water;
  - b. Continuous monitoring equipment at the O.B. Curtis WTP has not been repaired or calibrated for approximately three years since the instrument technician position was vacated. This equipment includes pH meters, flow measurement devices, turbidimeters, and the SCDs. Comparisons of operator laboratory bench sheet results indicated that the readouts from the continuous pH meters are off by up to 2 units in some instances. It was indicated on the monthly operating reports submitted in response to the EPA’s November 22, 2019 Request for Information, that this equipment was used as the basis for the values reported for compliance.
  - c. Jar tests are commonly used in the industry as “bench-scale” simulations of full-scale coagulation/flocculation/sedimentation water treatment processes. Respondent does not follow the industry standard of conducting regular jar tests at both the O.B. Curtis and J.H. Fewell WTPs. Because the SCDs are used as the basis for those coagulant dosing decisions without having been calibrated, the lack of jar testing is an additional indicator in evaluating the ability of the WTPs to deliver safe drinking water to the System’s users.
  - d. Respondent conducts membrane cleaning cycles without the use of automatic monitoring equipment for pH and chlorine levels. Excess chlorine levels can damage and reduce membrane efficiency. In addition, membrane cleaning is partially dependent on pH, requiring either higher or lower pH cleaning regimes based on the foulants present. This automatic monitoring equipment has been nonfunctional for several years.
  - e. Respondent cannot currently perform membrane integrity testing at O.B. Curtis WTP due to wear and breakage of the system components and compressor. This is concerning due to the inability of the Respondent to evaluate the membrane filters’ mechanical integrity during times of turbidity exceedance.
  - f. Respondent has failed to perform filter maintenance at O.B. Curtis WTP and J.H. Fewell. Considering the recent turbidity exceedances, it is crucial that Respondent maintain the System filters to perform in optimal condition for protection of human health.
  - g. NDPWRs require a system’s combined filtered water at each plant be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, and the turbidity level of a